Claims

1. An interface device for a fiberoptic communication network, the interface device comprising:
an electric circuit arrangement,
a first receiving section for receiving a first transceiver module including
a first receiver unit for receiving optical signals from an optical conduction path, the first receiver unit comprising a first opto-electrical converter for converting the received optical signals to electrical signals, which are adapted to be conducted to said electric circuit arrangement, and
a first transmitter unit for transmitting optical signals to an optical conduction path, the first transmitter unit comprising a first electro-optical converter for converting electrical signals, received from said electric circuit arrangement, to optical signals before they are transmitted from the transmitter unit,
a second receiving section for receiving a second transceiver module including
a second receiver unit for receiving optical signals from an optical conduction path, the second receiver unit comprising a second opto-electrical converter for converting the received optical signals to electrical signals, which are adapted to be conducted to said electric circuit arrangement, and
a second transmitter unit for transmitting optical signals to an optical conduction path, the second transmitter unit comprising a second electro-optical converter for converting electrical signals, received from said electric circuit arrangement, to optical signals before they are transmitted from the transmitter unit,
a switching unit for switching said electric circuit arrangement between at least a first and a second state, wherein, in the first state the electrical signals from the first receiver unit are conducted to said first transmitter unit and in said second state the electrical sig-

nals from said second receiver unit are conducted to said first transmitter unit, and

a controller arranged to automatically control the switching unit in response to at least one control signal such that said first state is selected when said at least one control signal indicates either that no transceiver module is attached to said second receiving section or that no optical signal above a certain signal level is received by a transceiver module attached to said second receiving section.

2. An interface device according to claim 1, arranged such that said at least one control signal is derived by either sensing a logical voltage over a sense-resistor, which voltage indicates whether a transceiver module is attached to said second receiving section, or by sensing whether a driving current is consumed by a transceiver module attached to said second receiving section.

3. An interface device according to claim 1, arranged such that said at least one control signal is derived from a level detector which indicates whether said optical signal above a certain signal level is received by a transceiver module attached to said second receiving section.

4. An interface device according to claim 1, wherein said controller is arranged to receive a second control signal from a network management system in order to control the switching unit between said first and second states, wherein the controller is arranged such that said second control signal determines the state of the switching unit even if said at least one control signal indicates switching to a different state.

5. An interface device according to claim 1, wherein said first and second receiving sections are designed such that said first and second transceiver modules may be plugged into the receiving sections and unplugged therefrom in a quick-connect manner.

6. An interface device according to claim 1, comprising a circuit board carrying said electric circuit arrangement, said first receiving

section, said second receiving section, said switching unit and said controller.

7. A method of using the interface device according to claim 1 in a fiberoptic communication network including at least a first network unit arranged for bi-directional optical communication and a second network unit arranged for bi-directional optical communication, according to which method:
said first transceiver module is attached to said first receiving section and said first receiver unit and said first transmitter unit are connected via a bi-directional optical communication path to said first network unit,
said second transceiver module is attached to said second receiving section and said second receiver unit and said second transmitter unit are connected via a bi-directional optical communication path to said second network unit, and
said switching unit is set in said second state.

8. A method according to claim 7, wherein said first network unit comprises a multiplexer/demultiplexer.

9. A method according to claim 8, wherein said multiplexer/demultiplexer is also connected to a larger fiberoptic network with which the second network unit may communicate via said multiplexer/demultiplexer.

10. A method according to claim 9, wherein said second network unit is subscriber unit, wherein said interface device together with said attached first and second transceiver modules adapt the optical signals from said second network unit before transmitting the signals to said multiplexer/demultiplexer, and also adapt signals from said multiplexer/demultiplexer before they are transmitted to said second network unit.

11. A method according to claim 7, wherein said interface device together with said attached first and second transceiver modules

perform the function of a repeater node in said fiberoptic communication network.

12. A method of using the interface device according to claim 1 in a fiberoptic communication network including at least a first network unit arranged for bi-directional optical communication and a second network unit arranged for bi-directional optical communication, according to which method:
said first transceiver module is attached to said first receiving section and said first transmitter unit is connected to transmit optical signals to said first network unit while said first receiver unit is connected to receive optical signals from said second network unit,
and said first network unit is connected to said second network unit such that signals from the first network unit are transmitted to said second network unit without passing through said interface device,
and wherein said switching unit is set in said first state.

13. A method according to claim 12, wherein no second transceiver module is attached to said second receiving section.

14. A method according to claim 12, wherein said first network unit comprises a multiplexer/demultiplexer.

15. A method according to claim 14, wherein said multiplexer/demultiplexer is also connected to a larger fiberoptic network with which the second network unit may communicate via said multiplexer/demultiplexer.

16. A method according to claim 15, wherein said second network unit is subscriber unit, wherein said interface device together with said attached first transceiver module adapt the optical signals from said second network unit before transmitting the signals to said multiplexer/demultiplexer, while signals from said multiplexer/demultiplexer are transmitted to said second network unit without being adapted by said interface device or any transceiver module attached to the interface device.